

June 2, 2014

**NOAA ADVISORY COMMITTEE ON COMMERCIAL REMOTE  
SENSING (ACCRES)**

**OPEN SESSION MEETING SUMMARY**

**May 15, 2014**

**Open Session**

The open session of the seventeenth meeting of NOAA's Advisory Committee for Commercial Remote Sensing (ACCRES) was convened on May 15, 2014 at 9:00 am in the main Department of Commerce room 1412, 1301 Constitution Avenue, Washington, DC 20230. In accordance with the provisions of Public Law 92-463, the meeting was open to the public.

**Committee members present:**

Mr. Kevin O'Connell (Chair)  
President and Chief Executive Officer, Innovation Analytics and Training LLC  
Dr. Joanne Gabrynowicz  
Director, National Center for Remote Sensing, Air, and Space Law, University of Mississippi  
Dr. David Gorney  
Senior Vice President, Space Systems Group, The Aerospace Corporation  
represented by Dr. Raymond Heidner  
Mr. Thomas Ingersoll  
President and Chief Executive Officer, Skybox Imaging  
represented by John Fenwick  
Mrs. Roberta Lenczowski  
President, American Society for Photogrammetry and Remote Sensing (ASPRS)  
Mr. Keith Masback  
President, United States Geospatial Intelligence Foundation (USGIF)  
Dr. Scott Pace  
Director, Space Policy Institute, George Washington University  
Mr. Herbert Satterlee  
Chief Executive Officer, McDonald, Dettwiler and Associates Information Systems, Inc.,  
(U.S. Subsidiary)  
Mr. Robert H. Schingler, Jr.  
Owner and Chief Operating Officer Planet Labs  
represented by Mr. Mike Safyan  
Mr. Jeffrey Tarr  
President and Chief Executive Officer, DigitalGlobe, Inc.  
Ms. Michelle R. Westlander Quaid  
Technology Evangelist, Google

**Observers:**

Ms. Catherine Venturini – Aerospace Corporation  
Mr. Bruce Heater – Commercial remote Sensing Working Group (CRSWG)  
Mr. Anthony Mastalir – DoD/JS J5  
Ms. Allison Hays – House Science Committee  
Mr. Dennis Mailhot – NOAA/CRSRA  
Mr. Alan Robinson – NOAA/CRSRA  
Ms. Maria A. Capellades – UrtheCast Corp.  
Mr. Selim Ibrahim – DTSA  
Mr. Chris Parillo – DTSA  
Mr. Tony Lin – Pillsbury Winthrop Shaw Pittman  
Mr. Greg Snyder – USGS Land Remote Sensing  
Mr. Steve Hennessy – OSD Treaty Compliance  
Mr. Fernando R. Echavarria – State Department OES/SAT  
Dr. Carlo Kuntz – Department of Defense  
Mr. Michael Hales – NGA/CRSWG  
Mr. Michael T. Bolen – ODNI  
Mr. Tim Trueheart – SAF/SP (USAF)  
Ms. Julie Campbell – Campbell Group, Inc.  
Mr. Mike Fox – Raytheon  
Ms. Eve Douglas – NOAA  
Mr. Glen Tallia – NOAA  
Mr. Richard James – NOAA  
Ms. Sandra Webster – NGA  
Mr. Patrick Enright – Exelis  
Mr. Bill Manly – Aerospace Corporation  
Ms. Marcy Steinke – DigitalGlobe  
Ms. Karen Yasumnia – DigitalGlobe  
Mr. Jeff Leonard – Booz Allen Hamilton

**Notes from NOAA ACCRES Meeting of May 15, 2014****R. F. Heidner III, Project West Wing****C. C. Venturini, Development Planning and Projects****The Aerospace Corporation**

**Meeting Description:** This was the second all-day ACCRES meeting that was open to the public. The driver for an open meeting was the FACA-imposed requirement for Commerce Business Daily notice of 45 days to hold a closed meeting (30 days for an open meeting). In addition to ACCRES members, attendees included the Aerospace presenters (C. Venturini and R. Heidner), a number of observers from other USG agencies, and quite a few members of commercial firms having a CEO on the ACCRES. Only a handful of “outside” observers were in attendance, including one Canadian national.

**Opening Remarks (Kevin O’Connell [Chair])**

O’Connell’s opening comments stressed that the ACCRES, although not meeting formally since 2012, had informally reviewed what it thought *should* be done in U.S. commercial remote

sensing policy. Professor Scott Pace offered an anecdote of FDR's resulting from a meeting with industry leaders: "You've convinced me; now bring some pressure to bear on me (so that I'll have the cover to make a decision)." In the case of CRS, the words of the current policy are fine; the problem lies in *process* and in a *shared vision* that can bring about a clear *direction* for policy implementation. In short, ACCRES can speak, but it needs to know what the Congress and the White House really want in order to exert pressure in a meaningful way.

### **Comments by Eve Douglas (Office of Space Commercialization)**

Eve acted for NOAA CRS Regulatory Affairs Office Director Tahara Dawkins at the meeting. She urged the Committee to assert itself once again (apparently the long hiatus between meetings was the result of NOAA administrative/funding issues). She offered that the Interagency process indeed needed to work better. Opinions on that topic varied around the room from "the process is completely broken" to "the process is really not all that bad and the new players in various agencies are generally more sympathetic to industry positions." Most of the more experienced members of the Committee thought that the underlying problem was that penalties for Interagency inaction were small to non-existent. The threat to elevate decisions to something like an EXCOM (non-existent), a National Space Council (non-existent), or the NSC Deputies Committee is not taken seriously. Having a well-defined and meaningful "escalation" path appears to be necessary to make tough decisions – particularly decisions on novel topics lacking precedents - through compromise at lower levels. Professor Joanne Gabrynowicz (U. Miss.) reminded the audience that there is a process for Interagency license adjudication spelled out quite explicitly in an MOU issued in 2000. Most thought that the MOU was fine, but the motivation to abide by it was missing.

She also observed the issue of privacy did not seem to play a part in the current discussions. She asked if this is something that needs to be considered as new licensing regulations are considered. The "global transparency" ushered in by the U.S. and international remote sensing data providers under the principle of "freedom of space" is not easily amenable to objections based on the concept of individual privacy. If the GSD for U.S. commercial imagery is indeed lowered to 0.25m, it is possible that this subject will become energized, both in the U.S. and abroad.

### **The Unintended Consequences of Excessive Regulation**

A very interesting discussion arose on this subject. Scott Pace (GWU) noted that security rules on export were having a stifling impact on U.S. space industry innovation. Keith Masback (USGIF) expanded the discussion by noting that overregulation was implicitly channeling corporate activities into "safe" venues where they wouldn't run afoul of vague regulations that resulted in time- and resource-consuming processes. He even believes this problem flows down into the university education structure where at least some schools are "teaching to the test," that is preparing students to work in companies that are no longer innovating as they once were. That tendency will accelerate if the USG allows other nations to push the technology envelope.

### **USG Questioning of Corporate Business Strategies**

Several ACCRES members (and other participants) complained that there were people in certain (unnamed) agencies who would not agree to approve NOAA license requests unless the applicant "proved" that there was a viable business case with an addressable market (note: in The Innovator's Dilemma, Christensen states "markets that don't exist can't be analyzed").

Many voices were raised to say that the government had no business asking this type of question. Business cases are not relevant to the USG role to protect “national security, foreign policy, or international obligations” except to the extent that using such a filter can *damage* U.S. interests in the long run by weakening the space industrial base. In short, the USG should not involve itself in business winners and losers; let the marketplace do that.

Others offered that this debate is indicative of the USG wishing to operate in a “zero risk” environment. Scott Pace once again asserted the need to think through the implications of today’s actions on the future outcomes pursued in policy documents. Jeff Tarr (DigitalGlobe) and several other members urged the government to transition from a “control strategy” to a “protection strategy.” In other words, virtually all private enterprise in satellite remote sensing has the *potential* for negative consequences. In order to realize the positive benefits, the government has to pre-plan mitigation strategies to minimize these negative impacts. “Doing nothing” is a default policy that has its own negative outcomes.

### **Aerospace Presentations**

The four presentations appeared to be well received: (1) Resolution Metrics (Heidner); Shutter Control (Heidner); Small Satellites (Venturini); and License Challenges for Current Law and Policy (Heidner).

### **Afternoon Deliberations by the ACCRES**

1. There was consensus that the ACCRES should immediately draft a 2-page paper supporting what appears to be an imminent Cabinet-level decision permitting the operation of private remote sensing satellites at 0.25m PAN and 1.0m MSI in the VNIR.
2. ACCRES members agreed that the Committee should develop a “Statement of Principles” that will inform future ACCRES recommendations to NOAA.
3. Cleared ACCRES members – and most of the Interagency observers – stressed the need to reschedule the cancelled May 14<sup>th</sup> classified Interagency Workshop<sup>1</sup>, possibly including a more formal “graybeards panel.” It was acknowledged by all parties that certain critical topics could not be addressed in the present open forum.
4. As a consequence of one of Rick Heidner’s charts from “Licensing Challenges,” the ACCRES began discussing how best to segregate current license applications both according to their inherent capabilities and their stated applications. Several approaches were suggested. There was unanimous agreement that the deluge of license applications now arriving at NOAA/CRSRAO cannot be handled – in NOAA or the Interagency review process – using current protocols. Somehow resources must be focused on the “hard” cases and approval of the “easy” cases must be streamlined. The phrase “triage and pre-approvals (for easy cases)” was offered.
5. As a consequence of Catherine Venturini’s talk on small satellites, especially nanosats and cubesats, the topics of debris control and object tracking took on a major focus for the Committee (Aerospace’s expertise in this field was acknowledged). Many of these very small satellites are at or below the current size limits for tracking. Moreover it takes an excessive amount of time to identify individual satellites when many are deployed in a

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<sup>1</sup> Project West Wing was asked to prepare a series of briefings for this Workshop; they are not yet complete.

single launch. Propulsion on these systems is limited or non-existent. In consequence, larger satellites, including commercial as well as governmental, are forced to maneuver to avoid potential collisions. Questions arose about how certain “rules-of-the-road” – like the 25-yr deorbit rule applied to NASA satellites - could be imposed on an international basis. Joanne Gabrynowicz noted that some countries (e.g., Austria), formerly without a national space policy, had become aware of their obligations under the Outer Space Treaty and the Liability Convention as their companies/universities/private citizens began deploying cubesats. Earlier Carol Kuntz (OSD), citing her PhD thesis on regulating the spread of biological weapons, noted there has been a lowering of the barriers to entry in a number of enterprises, including space, formerly controlled rigorously by the governments of technologically-advanced nations. The Committee recognized that there are major strategic challenges for U.S. operations in the current “contested, congested, and competitive” space environment.

NOAA is probably the wrong agency to lead policy discussions on the debris implications of cubesats, although NOAA, the FCC, and the FAA all have equities. The FCC requires developers to submit an orbital debris assessment as part of their commercial license request for access to spectrum. NOAA could easily leverage the FCC policy (see attached FCC Public Notice document).

#### **Concluding Remarks by Mark Paese, Deputy Assistant Administrator for NOAA/NESDIS**

Mark Paese has assumed the position long held by the recently retired Charlie Baker. Moreover, he is acting for Mary Kicza, the NESDIS Assistant Administrator, who is preparing to retire this Summer. Although he was not able to attend the morning or most of the afternoon session, he showed that he was familiar with the read-ahead material. He emphasized his belief that ACCRES must play a significant role in future decisions on private satellite remote sensing. He understood industry’s position having worked at BAH for a decade. He stressed the need for “foresight” since non-governmental remote sensing enterprises are now appearing at a rate that is outstripping government’s ability to keep pace unless it develops a sensible and supportive regulatory environment. In the end, he and the ACCRES members agreed that the government was caught up at present in a tactical environment where the urgent tended to crowd out both the strategic and the truly important. Mr. Paese appeared genuine in his desire to receive advice and counsel from the ACCRES.